Jeremiah W. (Jay) Nixon
Governor

Department of Economic Development

Mike Downing, CEcD
Director

Division of Energy

Public Meeting Report #3

Energy Resources in Emergencies and Energy Distribution

Missouri Comprehensive State Energy Plan

Stakeholder Engagement
October 14, 2014
Joplin, Missouri
Missouri Southern State University, Billingsly Student Center

BACKGROUND

Under Governor Jay Nixon's Executive Order 14-06, the Division of Energy will gather public input to identify the policies and practices that will meet Missouri's need for clean, affordable and abundant energy in the future.

This meeting represented the third of seven public meetings held around the State of Missouri to collect public input and feedback into the Comprehensive Statewide Energy Plan (the Plan).

The Plan will recommend policies that encourage efficient use of energy in all sectors of the economy; spur job creation and economic growth; and promote development, security and affordability of diverse energy sources.

The objectives of the meeting included:

1) To convene individuals who were appointed to the Plan's Steering Committee and develop a culture for dialogue;
2) Discuss opportunities and issues around the topics of Energy Resources in Emergencies and Energy Distribution;
3) To introduce the background and purpose of the Plan to the public; and
4) To gather public input and comments around different energy topics.

AGENDA

The meeting was structured in four parts:

1) Introduction and welcoming remarks from Lewis Mills, Director of the Division of Energy.
2) Short presentations from experts.
3) Discussion among Steering Committee members.
4) Public comment period.

Agenda Details

1:00 PM	Welcome and Introductions Lewis Mills, Director, Division of Energy City of Joplin Mayor Michael Seibert
1:10 PM	Missouri's Comprehensive State Energy Plan Lewis Mills, Director, Division of Energy
1:20 PM	Energy Resources in Emergencies Gary Pulsipher, President and CEO, Mercy Hospital Joplin
1:35 PM	ShelteR^3: Respond, Recover, Resist Kyle Clingan, member of the Crowder College and Drury University Solar Decathlon Team
1:45 PM	Energy Distribution Tina Gaines, Director of Engineering, Empire District Electric Company Ray Wilson, Supervisor of Construction Engineering, Missouri Gas Energy
2:00 PM	Steering Committee Discussion Topic: Energy Resources in Emergencies Topic: Energy Distribution Facilitator: Bennett J. Johnson, III, Inova Energy Group team
3:30 PM	Break
3:40 PM	Public Comment Period Facilitator: Bennett J. Johnson, III, Inova Energy Group team
5:00 PM	Adjourn

ATTENDANCE

Steering Committee Members

First Name	Last Name	Affiliation
Joan	Bray	Consumers Council of Missouri
Jim	Curran	Electrical Connection
Brad	Beecher	Empire District Electric Company
Julia	Katich	Missouri Department of Natural Resources
Bill	Gipson	Retired Utility Executive
Ashok	Gupta	Natural Resources Defense Council
Mark	Hill	Missouri Office of Administration
Frank	Kartmann	Missouri American Water Company
Duncan	Kincheloe	Missouri Public Utility Alliance
Lisa	Lemaster	Missouri Department of Transportation

First Name	Last Name	Affiliation
Laura	Lesniewski	American Institute of Architects
Karen	Massey	Environmental Improvement & Energy Resources Authority
Scott	Reeves	EaglePicher
Angela	Rolufs	Missouri University of Science & Technology
Larry	Pleus	The Laclede Group
David	Shanks	The Boeing Company
Brent	Stewart	Association of Missouri Electric Cooperatives
Jim	Turner	Sierra Club-Missouri Chapter
Ron	Walker	State Emergency Management Agency
Raymond	Wiesehan	Ameren Missouri
Loyd	Wilson	Missouri Department of Agriculture

Public Attendance

A total of 45 members of the public attended the meeting.

MEETING PROGRESSION

Welcoming Remarks

Lewis Mills, Director of the Division of Energy for the Department of Economic Development, welcomed Steering Committee members and the public to the meeting, presented the agenda for the meeting and invited comments from the public during the public comment period.

Presentations

Four different speakers were invited to present to the Steering Committee and the public on topics related to energy resources in emergencies and energy distribution. The PowerPoint presentations made at the meeting are available for viewing at *http://energy.mo.gov/energy/about/comprehensive-state-energy-plan.*

Title of Presentation: Energy Resources in Emergencies
Speaker: Gary Pulsipher, President and CEO, Mercy Hospital Joplin
Summary: The presentation focused on the process to rebuild Mercy Hospital in Joplin after the 2011 tornado. The presentation described storm-hardened features of the rebuild, and focused on challenges and lessons learned.

Title of Presentation: ShelteR3: Respond, Recover, Resist
Speaker: Kyle Clingan, member of the Crowder College and Drury University Solar Decathlon Team
Summary: The presentation highlighted the joint project between Crowder College and Drury University to develop an environmentally conservative solar powered home for the US DOE Solar Decathlon that will be disaster resilient.

Title of Presentation: Energy Distribution
Speaker: Tina Gaines, Director of Engineering, Empire District Electric Company and Ray Wilson, Supervisor of Construction Engineering, Missouri Gas Energy
Summary: The presentation focused on activities that Empire District Electric Company and Missouri Gas Energy undertook immediately after the tornado hit Joplin in 2011, with a focus on lessons learned and coordination of individuals and entities involved.

Steering Committee Discussion

Bennett J. Johnson, III, with the Inova Energy Group team, facilitated the Steering Committee discussion around the topics of energy resources in emergencies and energy distribution. A synopsis of comments made by Steering Committee members follows:

- Consider homeowner education on disaster preparedness, response and survival.
- Maintain every day and emergency relationships with State agencies. Emergency exercises and planning are important. Department of Transportation problems need a federal solution because they are always crossing state lines.
- Get power up as quickly as possible after a disaster. Consider that natural gas is less reliable than coal in the event of a disaster because coal can be stored on-site.
- Importance of water treatment plants and maintaining power for these facilities in the event of a disaster.
- Work with communities as they begin to rebuild their homes and facilities. This is also a good time to consider improvements to energy efficiency and building codes.
- Consider a statewide energy performance standard and code for residential and commercial buildings. Making buildings more energy efficient will reduce demand, inherently improve response to emergencies, and generally requires building structures that are more resilient.
- Realizing investments need to be made; a better balance needs to be struck between the amount spent recovering from a disaster and the amount invested in preparation to withstand or minimize the damage from a disaster. It can be hard to justify to consumers, businesses, regulators and policymakers the incremental investment to harden, improve or upgrade structures/systems against the future unknowns. It is only after catastrophic destruction or failure that those investments are defensible.
- Particularly during emergency or disaster response, utilities have raised safety concerns, which present new challenges unique to the electric grid as microgrids and distributed generation are explored and deployed.
- We need technology to prepare for emergency events. Explore the benefits of microgrids in allowing distributed generation and energy storage and continue to operate during an outage.
- Need to build resiliency, redundancy and reliability into the electric system for long-term benefits, recognizing the challenge is to use our resources in the most efficient manner. Rate design, smart grid, demand response and real-time pricing were discussed.

- Collaboration between utilities, communities and state agencies is important. Collectively discuss how to recover from a disaster from a community perspective.
- Evaluate the impact of floods and droughts on crops. More of a concern is the loss of heat or cooling on animal production. When the electric grid is down production stops.

After the recent series of natural disasters and storms, the markets are signaling an increasing awareness and sensitivity to incorporating disaster and emergency preparedness planning and design into projects prior to investment.

Public Comment Period

During the public comment period, a total of 8 individuals submitted verbal testimony to the Steering Committee and the Department of Economic Development. All comments were recorded and included in this report as Attachment 1.

ATTACHMENT 1 - Public Comments

October 14, 2014
Joplin, Missouri
Missouri Southern State University, Billingsly Student Center

The comments provided in this document do not represent a verbatim transcription of the comments received verbally and may incorporate some close paraphrasing on behalf of the record-keeper. Comments are not shown in the order in which they were received.

First Name	Last Name	Affiliation	Comment
Keith	Allen	Commercial Energy Consultants	A study of deregulation in Illinois stated it resulted in $37B in consumer savings, split between residential and commercial/industrial, so Missouri should also do this. (Mr. Allen read additional information from the study.)
Art	Boyt	Solsource	My company performs construction, especially energy efficiency and solar. The utilities' role in connecting solar to customers is important. There is a trend towards photovoltaic with battery storage, so grid can shed load during peak demand. Important to involve the Public Service Commission in policies to make incentives possible, which currently don't exist. Also, the Drury University solar home project (which was presented earlier) should be supported by the Steering Committee.
Ray Dan	Ostrand		Solar panels installed on my home dropped my utility costs by $100/month. This is a viable option for anyone.
Jeff	Droz	Roof Power Solar	I am located in Rich Hill and have done solar projects for 2.5 years, most grid-tied, but I live off-grid. Would be incredible if Empire (utility) would follow the law and pay solar rebates. Any help would have a big impact. Rebates spur new business. Also would like net metering cap to be removed. Would like demand-response incentivized and implemented. Microgrids can create islands that can function during an outage. Provide peak shaving through battery storage. Makes financial sense today. Prop C created good jobs for installers and that should be continued.
Mike	Grimes	Commercial Energy Consultants	If you have 30 large energy suppliers, they would be a big ally during emergencies, and would augment strong distribution. I will also leave copies of a book I wrote supporting deregulation.

First Name	Last Name	Affiliation	Comment
Gary	Kenney		I am a Joplin resident. I support earlier comments. Also, please keep 2-way ham radios operational, because high-tech solutions failed during the tornado response.
Cheryl	Marcum	Sierra Club member & solar home owner	I am from Cedar County and have a disconnected passive solar home, built by me and my husband. Photovoltaic powers the entire 3700 SF home. Would like to see: 1) Prop C implemented as originally designed; 2) RPS extended to cover co-ops; 3) Adoption of energy efficiency building energy code; 4) Solar education for residents; 4) Restructure utility rates to reward low users; 5) Invest in public electric charging stations; 6) PV on school roofs and parking lots with solar curriculum.